# White Sands Missile Range
# 2011 Drinking Water Quality Report

## What is This Water Quality Report?

This Annual Drinking Water Quality Report, or the Consumer Confidence Report, is required by the Safe Drinking Water Act (SDWA). The SDWA ensures public drinking water systems meet national standards for the protection of your health. This report provides details about where your water comes from, what it contains, and how it compares to standards set by the Environmental Protection Agency (EPA) and the New Mexico Environment Department (NMED). WSMR tap water meets all EPA and NMED drinking water standards.

**Este informe contiene informacion importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.**

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# Report Documentation Page

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# Water Quality Data Table

The table below lists the results of the most recent drinking water tests. During calendar year 2011, WSMR conducted tests for volatile organic chemicals (VOCs), synthetic organic chemicals (SOCs), inorganic chemicals (IOCs), disinfection by-products, and bacteriological contaminants.

The contaminants detected in your water are shown under the column heading "Main Post." The two columns labeled "Maximum Contaminant Level (MCL)" and "Maximum Contaminant Level Goal (MCLG)" show the EPA limits for safe drinking water. If a contaminant is not listed in this table, then it was not detected in your drinking water.

All contaminants detected were at low levels which are generally not harmful in drinking water. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels.

## Table Explanation

| | |
|---|---|
| ND | Not detected |
| NE | Not established |
| pCi/L | Picocuries per liter |
| ppb | Parts per billion or micrograms per liter (µg/L) |
| ppm | Parts per million or milligrams per liter (mg/L) |

## Terms and Definitions

| | |
|---|---|
| AL | Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. |
| Contaminant | Any physical, chemical, biological, or radiological substance in water. |
| EPA | Environmental Protection Agency |
| IOC | Inorganic Chemical |
| MCL | Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. |
| MCLG | Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety. |
| NMED | New Mexico Environment Department, the state drinking water regulatory agency. |
| SDWA | Safe Drinking Water Act |
| SOC | Synthetic Organic Chemical |
| VOC | Volatile Organic Chemical |
| WSMR | White Sands Missile Range |

| Contaminants | MCLG | MCL | Main Post | Year | Range Low | Range High | Violation | Typical Source |
|---|---|---|---|---|---|---|---|---|
| **Inorganic Chemicals** | | | | | | | | |
| Barium (ppm) | 2 | 2 | 0.064 | 2011 | NA | | No | Erosion of natural deposits. |
| Fluoride (ppm) | 4 | 4 | 0.4 | 2011 | NA | | No | Erosion of natural deposits, water additive which promotes strong teeth. |
| Nitrate (ppm) | 10 | 10 | 2.4 | 2011 | NA | | No | Runoff from fertilizer use, leaching from septic tanks, sewage, erosion. |
| **Radiological Contaminants** | | | | | | | | |
| Gross Alpha (pCi/L) | 0 | 15 | 4.6 ± 1.0 | 2006 | NA | | No | Erosion of natural deposits. |
| Gross Beta (pCi/L) | 0 | 50 | 4.9 ± 1.2 | 2006 | NA | | No | Decay of natural and man-made deposits. |
| Uranium (µg/L) | 0 | 30 | 3.2 | 2006 | NA | | No | Erosion of natural deposits. |
| Radium (pCi/L) | 0 | 5 | 1.73 ± 0.62 | 2006 | NA | | No | Erosion of natural deposits. |
| **Disinfection By-Products** | | | | | | | | |
| Haloacetic Acids (ppb) | NE | 60 | 1.73 | 2011 | ND | 5.2 | No | By-product of the chlorination of drinking water for disinfection. |
| Total Trihalomethanes (ppb) | NE | 80 | 26.1 | 2011 | ND | 56.5 | No | By-product of the chlorination of drinking water for disinfection. |

| Contaminants | MCLG | AL | Main Post | Year | # Samples Exceeding AL | Exceeds AL | Typical Source |
|---|---|---|---|---|---|---|---|
| **Lead and Copper** | | | | | | | |
| Lead (ppb) | 0 | 15 | 1.5 | 2009 | 0 | No | Corrosion of household plumbing systems, erosion of natural deposits. |
| Copper (ppm) | 1.3 | 1.3 | 0.170 | 2009 | 0 | No | Corrosion of household plumbing systems, erosion of natural deposits. |

| Contaminants | MCLG | MCL | Main Post | Year | Violation | Typical Source |
|---|---|---|---|---|---|---|
| Total Coliform (positive samples/month) | 0 | 1 | 1 | 2011 | No | Naturally present in the environment. |

## Where Does My Water Come From?

Drinking water produced by our Main Post system is comprised entirely of groundwater. Water is pumped from an underground aquifer, which is similar to a natural storage tank made of water, rocks, sand, and other material. The water in the aquifer comes primarily from rainwater that filters through the ground.

A system of water wells is used to bring the groundwater to the surface where it is treated, blended, and distributed to various areas of the Main Post.

## Why Are There Contaminants in My Drinking Water?

According to the SDWA, anything in water that is not $H_2O$ is considered a contaminant regardless of whether it is harmful or not.

Therefore, drinking water (including bottled water) may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. The sources of drinking water (both tap water and bottled water) may include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground it dissolves naturally-occurring minerals, and in some cases can dissolve radioactive material. It can also pick up substances resulting from the presence of animals or human activity.

Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. Inorganic contaminants such as salts and metals can be naturally-occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming. Pesticides and herbicides may come from a variety of sources such as agriculture, urban stormwater runoff, and residential use.

Organic chemical contaminants, including synthetic and volatile organic chemicals, may also come from gas stations, urban stormwater runoff, and septic systems. Radioactive contaminants can be naturally-occurring or can be the result of oil and gas production and mining activities.

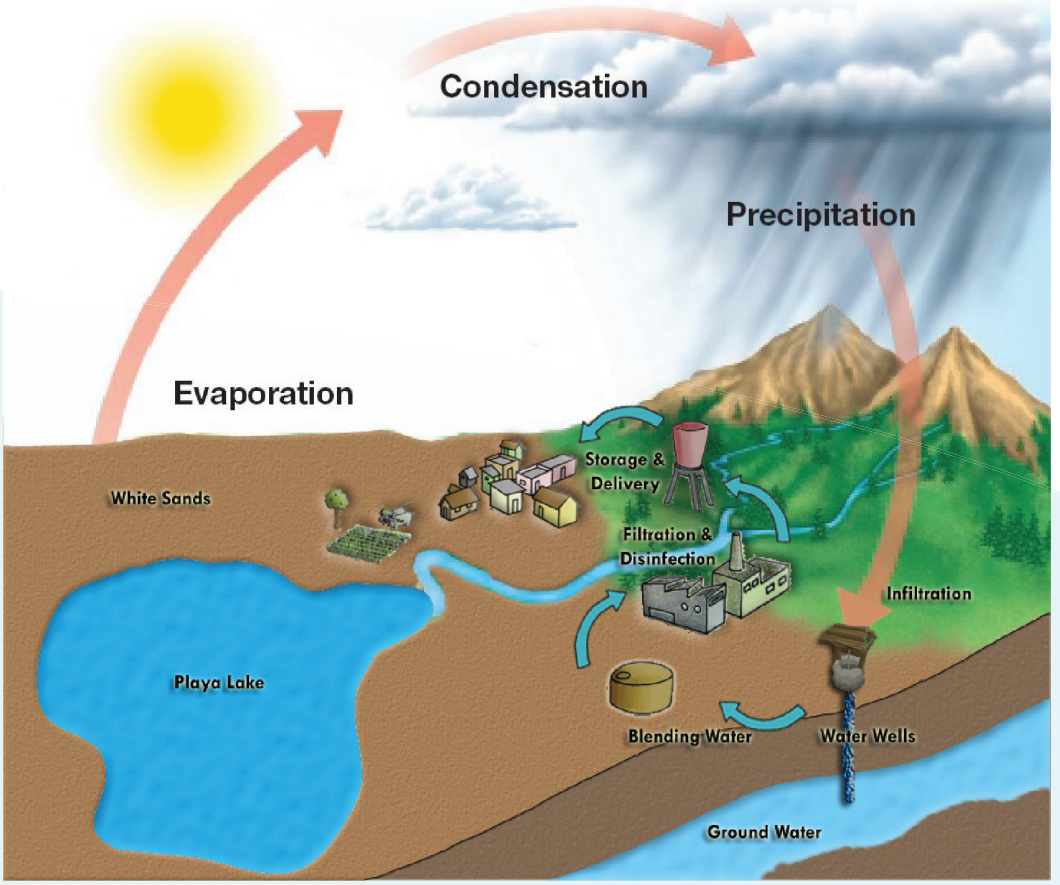
## Do I Need to Take Special Precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, and people with HIV/AIDS or other immune system disorders can be particularly at risk for infections. Some elderly people and infants may also be at particular risk for infections. These people should seek advice from their health care providers about drinking water. EPA and the Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791) or at http://water.epa.gov/drink/info.

### Notice to Users of Infrequently Used Facilities

Some of our facilities have low and infrequent water use. After a facility has been unused for five or more continuous days, it is recommended that you let the water run for at least 30 minutes before using the water. This will help maintain proper chlorination. If you have questions about infrequently used facilities, please call the Directorate of Public Works, Operations and Maintenance Division, Utilities Section at (575) 678-1917.

## The Hydrologic Cycle



**Department of the Army**
**U.S. Army Garrison White Sands**
**Attn: IMWS-PWE-EC (Building 163)**
**WSMR, NM 88002-5008**



**Drinking Water Compliance Program Manager**
**Telephone: (575) 678-3802 or (575) 678-2225**
**Fax: (575) 678-4028**

**Postmaster, please deliver between June 18 – June 22**

## Did You Know?

► WSMR uses a water treatment plant that filters the water and adds fluoride and chlorine. Chlorine is added to disinfect and remove bacteria, and fluoride is added to the Main Post and residential area water to help prevent tooth decay.

► If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. WSMR is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline: (800) 426-4791 or at the EPA lead information website, http://water.epa.gov/drink/info/lead/index.cfm.

► Nitrate in drinking water at levels above 10 parts per million (ppm) is a health risk for infants younger than six months of age. High nitrate levels in drinking water can cause blue baby syndrome (a disorder caused by the inability of blood to carry oxygen). Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider. Nitrate levels in WSMR water consistently meet EPA requirements.

► In order to ensure you are receiving the best quality water, WSMR must flush the system periodically. Flushing the water system is done by opening hydrant valves or allowing the wells to discharge the water somewhere other than the water distribution pipes. Flushing can cause the water to run out onto the street or out into the desert. Even though it may appear that this water is being wasted, it is not. The water is still part of the hydrologic cycle and will either evaporate or infiltrate. Both evaporation and infiltration eventually lead to the water becoming part of the water supply.

### Sanitary Survey and Source Water Assessment

As required by the SDWA, NMED has performed a sanitary survey and analyzed the groundwater sources used to supply water for the Main Post area. The Sanitary Survey and Source Water Assessment are available upon request from the WSMR DPW Environmental Compliance Office at (575) 678-2225.